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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,808	09/17/2002	Larry Halliwell	148/302	2451

7590 03/01/2006  
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EXAMINER

MCKANE, ELIZABETH L

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 03/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/088,808

Applicant(s)

HALLIWELL ET AL.

Examiner

Leigh McKane

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-18 and 26-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-18 and 26-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term “the container” in line 1 of the claim lacks positive antecedent basis because it has only been previously recited in the context of an intended use (e.g. “for use in an airspace within a container”) in claim 12. Moreover, claim 18 fails to further limit the composition of claim 12.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanderson (GB 2,189,676).

Sanderson teaches a sterilizing block (solid pill; page 2, lines 111-112) comprising a sulphur dioxide activating compound (sodium metabisulphite), a water-soluble organic acid, and/or its corresponding salt. See Abstract; page 1, lines 30-31, lines 48-53, lines

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68-75. The organic acids include carboxylic acids having 1-3 carboxyl groups. See page 1, lines 48-53. Sanderson discloses that the organic acid “*and/or a salt thereof*” may be used in an amount of 0.01-15% as a buffer. See page 1, lines 30-31; page 2, line 28. Thus, it is deemed obvious to one of ordinary skill in the art to use either the organic acid alone or in combination with its salt, in view of the teachings of Sanderson. As to the particular salt used, those enumerated in the instant claims (magnesium, sodium, and potassium) are well-known water soluble salts and would have been obvious in Sanderson, as involving no invention. The intended use of the composition “for use in an airspace within a container,” it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). In this instance, the solid sterilizing composition of Sanderson meets the instant claim limitations.

5. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sanderson as applied to claim 12 above, and further in view of Lawson et al. (EP 431844).

Sanderson discloses use of the sterilizing block for providing release of sulphur dioxide when in the presence of water as a germicide for providing longevity to cut flowers. Sanderson does not teach use of the sterilizing block for sterilizing the air space in a container. However, Lawson et al. discloses use of a composition containing sodium metabisulphite for release of sulphur dioxide when in the presence of water for sterilizing hazardous waste containers. See Abstract; page 2, lines 2-5. In view of the teachings of Lawson et al., it would have been obvious to one of ordinary skill in the art at the time of the invention to employ the composition of Sanderson for uses other than flower preservation – for example, uses such as waste container

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sterilization in the manner taught by Lawson et al. – since sulphur dioxide has been shown to be an effective germicide in alternate environments.

6. Claims 26-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanderson in view of Lawson et al..

Sanderson teaches a sterilizing block (solid pill; page 2, lines 111-112) comprising a sulphur dioxide activating compound (sodium metabisulphite), a water-soluble organic acid, and/or its corresponding salt. See Abstract; page 1, lines 30-31, lines 48-53, lines 68-75. The organic acids include carboxylic acids having 1-3 carboxyl groups. See page 1, lines 48-53. Sanderson discloses that the organic acid “*and/or a salt thereof*” may be used in an amount of 0.01-15% as a buffer. See page 1, lines 30-31; page 2, line 28. Thus, it is deemed obvious to one of ordinary skill in the art to use either the organic acid alone or in combination with its salt, in view of the teachings of Sanderson. As to the particular salt used, those enumerated in the instant claims (magnesium, sodium, and potassium) are well-known water soluble salts and would have been obvious in Sanderson, as involving no invention. Sanderson discloses use of the sulphur dioxide as a germicide to promote longevity in cut flowers. However, Sanderson does not teach use of the composition for sterilizing an airspace within a container.

Lawson et al. discloses use of a composition containing sodium metabisulphite for release of sulphur dioxide when in the presence of water for sterilizing hazardous waste containers. See Abstract; page 2, lines 2-5. In view of the teachings of Lawson et al., it would have been obvious to one of ordinary skill in the art at the time of the invention to employ the composition of Sanderson for uses other than flower preservation – for example, uses such as

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waste container sterilization in the manner taught by Lawson et al. – since sulphur dioxide has been shown to be effective as a germicide in alternate environments.

***Response to Arguments***

7. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

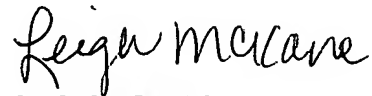
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leigh McKane whose telephone number is 571-272-1275. The examiner can normally be reached on Monday-Thursday (5:30 am-2:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Leigh McKane**  
**Primary Examiner**  
**Art Unit 1744**

elm  
20 February 2006